

XXXI.—*Some Remarks on the Genus Trachinus.*

By Dr. ALBERT GÜNTHER.

[Plate VIII. figs. B, C, D.]

THE different species of Weevers (*Trachinus*) have lately been re-examined by Dr. P. v. Bleeker*, who, having paid attention to several characters not mentioned in the works of previous writers, considers them as important enough to split that Linnean genus into three. The characters on which the new divisions are founded are the following:—

1. Armature of the head.
2. More or less oblique direction of the cleft of the mouth.
3. More or less scaly covering of the cheek.
4. Smooth or ciliated edge of the lips.
5. Presence or absence of pterygoid teeth.
6. A single or double lateral line.

Whilst the three former of those characters have been used by other ichthyologists for distinction of the species, M. Bleeker has the merit of having added the three latter: attaching, however, a generic value to them, he distinguishes three genera, characterized as follows:—

1. *Trachinus*.

Caput vertice granulis scabrum. Orbita antice spinis armata. Maxilla superior usque ante oculum adscendens. Squamæ genis sessiles multiseriatæ. Labia simplicia, nec fimbriata nec papillata. Dentes pterygoidei. Oculi obliqui, subverticales. Præoperculum aculeatum. Linea lateralis simplex.

The following species are referred to this division: *T. armatus*, L., *T. araneus*, C. & V., *T. armatus*, Schl., *T. (?) cornutus*, Guich.

2. *Pseudotrachinus*.

Caput vertice granulis e centris radiantibus scabrum. Orbita antice spinis armata. Maxilla superior non usque ante oculum adscendens. Spinæ suborbitales sursum spectantes. Squamæ genis sessiles multiseriatæ. Labia simplicia, nec fimbriata nec papillata. Dentes pterygoidei nulli. Oculi obliqui, subverticales. Præoperculum non aculeatum. Linea lateralis simplex.

This division is founded on *T. radiatus*, C. & V., and on *Pseudotrachinus pardalis*, Blkr.

3. *Echiichthys*.

Caput vertice non granosum. Orbita ubique lævis. Maxilla superior usque ante oculum adscendens. Spinæ suborbitales nullæ. Squamæ genis parvæ, deciduæ. Labia papillata vel fimbriata.

* Ann. Scienc. Nat. Paris, 1861, p. 375.

Dentes pterygoidei nulli. Oculi obliqui, subhorizontales. Præoperculum aculeatum. Linea lateralis duplex.

T. vipera, C. & V.

It is not my intention to question for a moment the merits of a division by which, at all events, the determination of those six or seven species is facilitated; but I shall be satisfied with directing attention to the following points which occurred to me during the arrangement of the specimens of *Trachinus* which have been added to the British Museum Collection in the course of the two last years.

1. *Trachinus araneus* was known to me only from the dried skin of a half-grown specimen. The British Museum has lately received a fine large specimen from Cannes (South of France). This species has no pterygoid teeth; the maxillary extends upwards to before the orbit; the cheeks are entirely naked; and the præoperculum is provided with the same feeble spines which are observed in the common Weever (*T. draco*). Therefore this species cannot be referred to *Trachinus*, Blkr., from which it differs in two characters, nor to *Pseudotrachinus*, Blkr.; and unless the diagnoses of those two genera are essentially altered, we shall have to propose a fourth genus for this Weever.

2. The présence of a second (lower) lateral line, attributed to the genus *Echiichthys*, will require further confirmation. Dr. Bleeker says distinctly that it is not a simple "dépression intermusculaire." If we understand by lateral line a canal in the integuments of the body, which is the continuation of the muciferous channels of the head, opening by equidistant pores, I may say that such a second lateral line is not present in *Trachinus vipera*. It appeared to me to be a depressed line, produced by the insertion of a long, thin, flat muscle, the fibres of which descend obliquely forwards to the base of the anal fin; its function is to depress the rays of the anal fin. The line does not extend forward on to the trunk. I could not detect any pores, although I have examined British and Dutch specimens, the latter being sent by Dr. v. Bleeker to the British Museum.

3. In the second volume of the 'Catalogue of Fishes' (p. 234), I have described a Weever from the West Coast of Africa, which differed from the European *T. draco* in the stronger armature of the head, and in the less elongated body. Notwithstanding, I preferred describing it as a variety, seeing that some specimens from the Canary Islands also showed a stronger armature of the head than is usually found in specimens from Northern Europe, although their body is elongate as in the true *T. draco*. Dr. Bleeker has recognized this African Weever in two other specimens in the Leyden Museum, where

they had been named *T. armatus*, Schleg. He does not hesitate to consider it as a species constantly differing from *T. draco* in the ray-like arrangement of the granules on the crown of the head, and in having the interorbital space more concave, the orbital spines stronger, and the bands of pterygoid teeth broader.

Those observations, as regards *T. armatus*, are fully confirmed by an examination of the specimen in the British Museum, which, probably, originates from the same source as those in the Leyden Museum. But if we attach (in this case) specific value to the characters mentioned, I am afraid that the species *T. draco* will share a fate similar to that of the genus *Trachinus*. The following are my observations on specimens from different localities:—

a. *A specimen from the coast of Guinea, 7 inches long (T. armatus).*—The height of the body is contained $5\frac{1}{2}$ times in the total length. The granules on the crown of the head radiate from centres; interorbital space very narrow and concave; spines before the orbit strong. L. lat. 75. Band of pterygoid teeth 8 mill. long, and $1\frac{2}{3}$ mill. broad. (Pl. VIII. fig. B.)

b. *A specimen from the island of Gomera, $9\frac{1}{2}$ inches long.*—The height of the body is contained $6\frac{1}{2}$ times in the total length. The granules on the crown of the head radiate from centres; interorbital space not very narrow, and moderately concave; spines before the orbit rather strong. L. lat. 85. Band of pterygoid teeth $10\frac{1}{2}$ mill. long, and $1\frac{1}{4}$ mill. broad. (Pl. VIII. fig. C.) (A specimen from Lanzarote possesses the same characters.)

c. *A specimen from Cannes, 8 inches long.*—The height of the body is contained $6\frac{1}{2}$ times in the total length. The granules on the head are not arranged in rays; interorbital space not very narrow, and moderately concave; spines before the orbit rather feeble. L. lat. 85. Band of pterygoid teeth $8\frac{1}{2}$ mill. long, and $1\frac{1}{4}$ mill. broad.

d. *A specimen from Båhuslän (Sweden), 11" long.* The height of the body is $\frac{1}{7}$ th of the total length. The granules on the head are not arranged in rays; interorbital space not very narrow, and but little concave; spines before the orbit short and obtuse. L. lat. 85. Band of pterygoid teeth $11\frac{1}{2}$ mill. long, and 1 mill. broad. (Pl. VIII. fig. D.)

Thus we see that the characters on which *T. armatus* is founded are subject to not inconsiderable variation; but it differs from all the specimens, even from those from the Canary Islands, in having a shorter body and tail. I was in hopes of finding a corresponding decrease in the number of the caudal vertebræ, which at once would have settled the question of its specific distinctness, inasmuch as in those families of fishes which have the tail

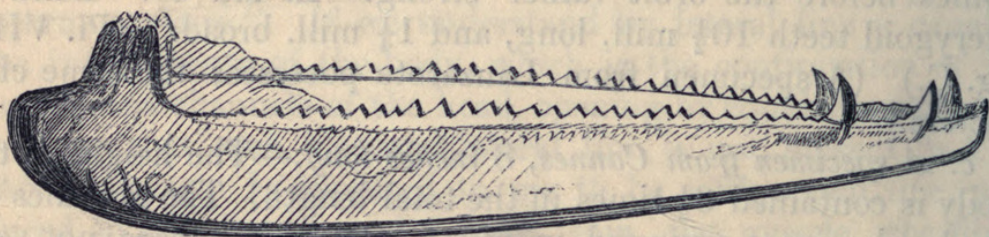
elongate, and the caudal portion of the vertebral column composed of more than fourteen vertebræ, the number of caudal vertebræ is less in the species with the shorter tail. *Trachinus draco*, *T. araneus*, and *T. vipera* have respectively 30–31, 29, and 25 caudal vertebræ, according to the length of their tail. *Cottus scorpius* and *C. bubalis*, the different species of *Solea*, &c., are examples of the same kind. But in *T. armatus* the shortness of the body is not accompanied with, or produced by, a smaller number of vertebræ: it has forty-one vertebræ, thirty of which belong to the caudal portion; or, in other words, it completely agrees in this respect with *T. draco*.

XXXII.—*Note on the Discovery of an extremely minute Vertebrate Lower Jaw in Mud dredged at St. Helena.* By Dr. WALLICH, F.L.S.

To the Editors of the Annals and Magazine of Natural History.

GENTLEMEN,

I beg herewith to enclose a sketch of the jaw of a vertebrate animal, detected by me, a few days ago, in a slide containing a specimen of muddy deposit dredged up at St. Helena, in 1857, in 30 fathoms water, and mounted by me in Canada balsam at the time it was obtained.



The jaw and teeth are fully developed and perfect, there being nothing in the aspect of either to indicate their having formed portions of a creature in a foetal condition.

The extreme length is $\frac{1}{100}$ inch; so that, assuming the body to have been five times as long as the jaw, we have here evidence of the existence of a vertebrate animal measuring only $\frac{1}{20}$ inch in length—a size considerably below that of many of the organisms usually regarded as microscopic.

I have not had time hitherto to enter into a detailed examination of this most interesting specimen, but shall do myself the pleasure of communicating further particulars regarding it at an early opportunity.

I remain, Gentlemen,

Your most obedient Servant,

G. C. WALLICH.

17 Campden Hill Road, Kensington.

Sept. 21, 1862.



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